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(54) Title: SYSTEM AND METHOD FOR THE OPTIMIZATION OF DATABASE ACESS IN DATA BASE NETWORKS
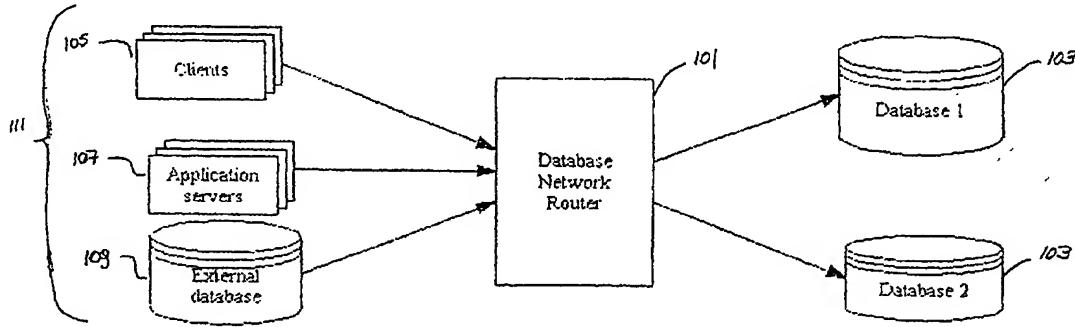
(57) Abstract: A database network router (DNR) in a database network includes a client access module and a database resource manager that communicate with each other using a common software interface. The client access module communicates with clients including application servers and external database servers; and the database resource manager communicates with the database servers. The DNR also includes a protocol manager for handling multiple database protocols. The database network router also includes local data cache storage to store commonly used data objects, results of parsed query statement, non-optimized query statements, and optimized alternatives and assigns a priority to each client on log-in. The DNR provides a method for connections pooling, a method for balancing the load in a database networks and a method for synchronizing the data stored in cache memory with the database network and method for synchronizing the data stored in cache memory with the database to insure datareliability. The DNR also provides a method for monitoring and optimizing data queries to improve the performance of the database network. The DNR also provides a method to migrate from an old to a new version of the database.